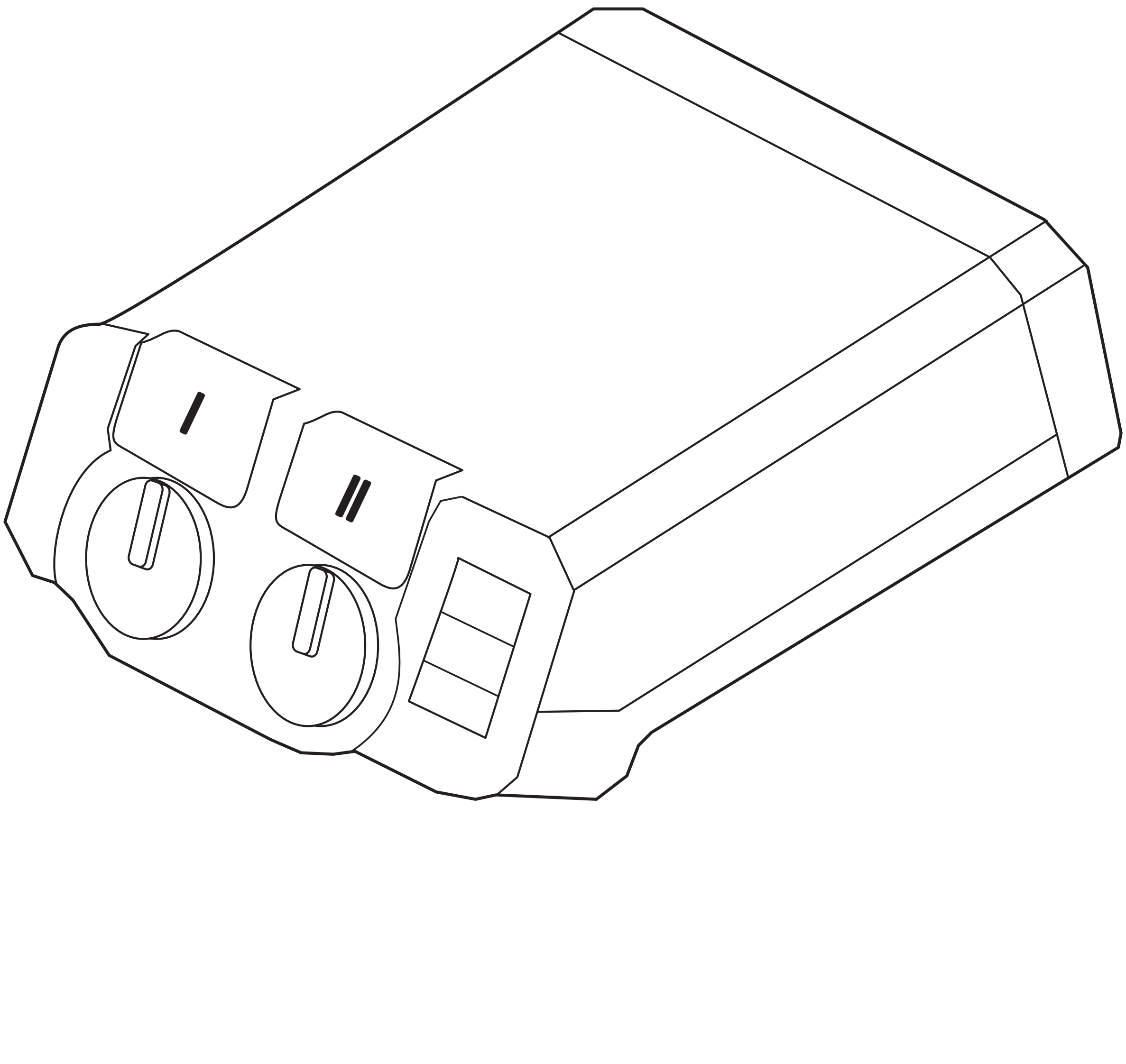
MODEL BP-325
Belt-pack Intercom Station
User Manual



9350-5690-00 Rev. M 8/2008

PROPRIETARY NOTICE

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COPYRIGHT NOTICE

WARRANTY NOTICE

See the enclosed warranty card for further details.

CUSTOMER SUPPORT

Technical questions should be directed to:

Customer Service Department
RTS/Telex Communications, Inc.
12000 Portland Avenue South
Burnsville, MN 55337 USA
Telephone: 800-392-3497
Fax: 800-323-0498
Factory Service: 800-553-5992

RETURN SHIPPING INSTRUCTIONS

Customer Service Department
Telex Communications, Inc. (Lincoln, NE)
Telephone: 402-467-5321
Fax: 402-467-3279
Factory Service: 800-553-5992

Please include a note in the box which supplies the company name, address, phone number, a person to contact regarding the repair, the type and quantity of equipment, a description of the problem and the serial number(s).

SHIPPING TO THE MANUFACTURER

All shipments of product should be made via UPS Ground, prepaid (you may request from Factory Service a different shipment method). Any shipment upgrades will be paid by the customer. The equipment should be shipped in the original packing carton. If the original carton is not available, use any suitable container that is rigid and of adequate size. If a substitute container is used, the equipment should be wrapped in paper and surrounded with at least four (4) inches of excelsior or similar shock-absorbing material. All shipments must be sent to the following address and must include the Proof of Purchase for warranty repair. Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper, collect.

Factory Service Department
Telex Communications, Inc.
8601 East Cornhusker Hwy.
Lincoln, NE 68507 U.S.A.
Attn: Service

This package should include the following:

Qty	Description	Part No.
1	Final Assy, BP325, Gray	9010673800
	Final Assy, BP325, Rev 2.0	9010673820
	Final Assy, BP325, Black	9010673821
1	User Manual	9350569000
1	Warranty Statement	38110387
1	EMC & LVD Statement	38109675

Table Of Contents

CHAPTER 1

CONNECTIONS AND OPERATION

This section describes operation of the BP325 as supplied from the factory. Use of an RTS power supply to power the intercom system is assumed. For options and use of an alternate power source (See “PROGRAMMABLE OPTIONS” on page 3. and See “ALTERNATE POWERING METHODS” on page 5..

CONNECTIONS

Headset

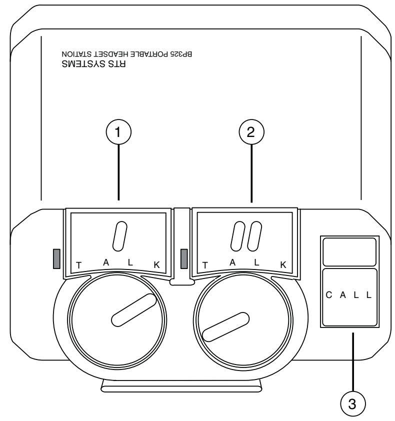
Connect a headset using one of the three headset connectors on the back panel. The MONO HEADSET and STEREO HEADSET connectors are for monaural or stereo dynamic-mic headsets. The CARB-MIC HEADSET connector is for a monaural carbon-mic headset. Refer to the specifications for pin-outs of these connectors if needed.

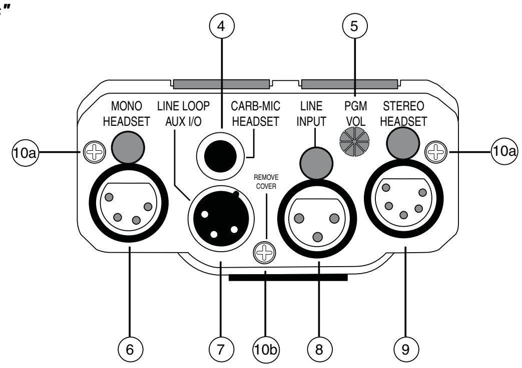
Intercom Channels

Connect the BP325 to the intercom system using the LINE INPUT connector on the back panel.

If desired, connect an additional intercom station to the intercom system using the LINE LOOP connector on the back panel.

1. *Channel 1 talk button, indicator light and listen volume control.*
2. *Channel 2 talk button, indicator light and listen volume control.*
3. *Call button and indicator light.*
4. *Carbon-mic headset jack. May also be used for external mic switch. See "Programable Options".*
5. *Program volume control. Active only when using the line loop connector for optional program input. See "Programable Options".*
6. *Monaural dynamic-mic headset jack.*
7. *Intercom line loop connector for connection to additional intercom stations. May also be used for external program input, external mic switch, or a non-standard power source. See "Programable Options" and "Alternate Powering Methods".*
8. *Intercom line connector. For connection to intercom system.*
9. *Stereo dynamic-mic headset jack.*
10. *Rear cover removal to set options: Loosen two screws (10a) and remove one screw (10b).*





OPERATION

1. Attach the BP325 to your belt or other convenient location using the belt clip on the rear panel.
2. Put on the headset and adjust the listen volume controls while listening to the intercom channels.
3. A TALK button may be activated in either of two ways:

   Momentary Mode: Press and hold the TALK button, then speak into the microphone. The green talk LED will remain lit while the TALK button is held. Release the TALK button when finished talking. The talk LED will turn off.

   Latching Mode for Hands-free Conversation: Tap the TALK button (do not press and hold). The green talk LED will turn on and remain on. When finished talking, tap the TALK button again. The talk LED will turn off.
4. Calling an intercom channel:

   a.Turn on the TALK button for the channel to be called (the green talk LED should be lit).

   b.Press and hold the CALL button. The red call LED will light while the button is pressed, indicating that a call signal is being sent. When a response is heard, release the CALL button and begin your conversation.

   c.Turn off the TALK button when finished with your conversation.
5. Receiving a call:

a.When there is an incoming call on a channel, the red call LED will flash.
b.If a talk LED is also flashing, this indicates that you need to activate that TALK button to begin your conversation.
c.If no talk LED is flashing, this indicates that the TALK button is already on; simply begin your conversation.

6. Sending a Talk-off Signal: The BP325 can generate an inaudible signal which can be used to deactivate the talk buttons on other intercom stations connected to an intercom channel. (May be used with models BP325, MCE325 and MRT327). This feature is useful when an unattended intercom station has its microphone activated and is causing noise on an intercom channel. To send a talk-off signal:
a.Turn off both TALK buttons on the BP325.
b.Tap the CALL button three quick taps. The red call LED will turn on for about 2 seconds.
c.While the red call LED is on, momentarily press the TALK button for the channel that has the TALK button to be turned off. This will send the signal and turn off the remote TALK button.

PROGRAMMABLE OPTIONS

Several internal option switches and jumpers can modify the belt pack’s operation. The factory settings are summarized below. To change any of the factory settings, remove the rear cover screws as shown in Figure 1. Jumper and switch locations are shown on the label inside the rear cover.

FACTORY SETTINGS

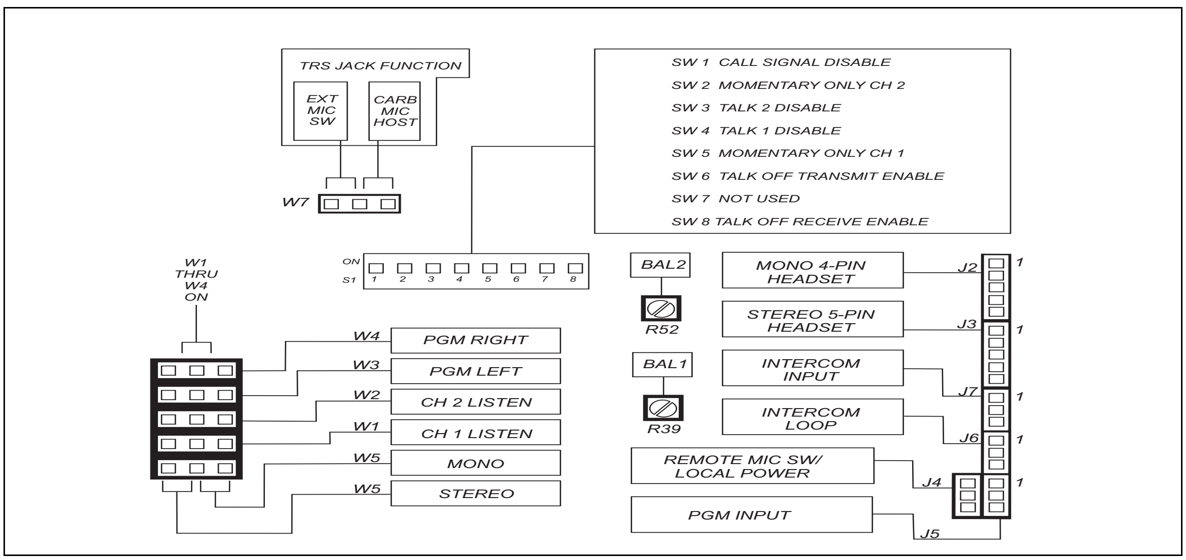


TABLE 1. BP-325 Unit Jumper Settings - This equipment complies with the requirements in Part 15 of the FCC Rules for a Class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take whatever steps are necessary to correct the interference.

Jumpers (W1-W7)

No. Setting	Description	Factory Default
W1	CH 1 Intercom Audio Listen[a]	ON
W2	CH 2 Intercom Audio Listen[a]	ON
W3	Program input to left headphone[b]	OFF
W4	Program input to right headphone[b]	OFF
W5	Stereo/Mono operation[c]	Stereo
W6	Not Used	
W7	CARB/MIC Jack Function[d]	Headset
DIP Switches (S1)		
1	Call Signal Transmit Disable	OFF
2	Momentary Only Talk Button, CH2[e]	OFF
3	CH2 Talk Disable[f]	OFF
4	CH1 Talk Disable[f]	OFF
5	Momentary Only Talk Button, CH1[e]	OFF
6	Talk-off Transmit enable[g]	ON
7	Not Used	OFF
8	Talk-off Receive Enable[h] i	ON

a. Listen is factory set to be ON all the time on both channels. Setting W1 to the OFF position will disable intercom listen audio on channel 1 (usually the left headphone of a stereo headset). Setting W2 to the OFF position will disable intercom listen audio on channel 2 (usually the right headphone of a stereo headset). Listen disable could be used, for example, when you want to use the left side of a stereo headphone exclusively for program audio input and the right side for a single channel of intercom audio. In this case you would:

1. Set W1 to OFF to disable channel 1 intercom audio listen to the left headphone.

2. Set DIP switch 4 to ON to disable channel 1 talk.

3. Setup the left channel for program input.

b. To use program audio input:

1. Unplug the LINE LOOP connector from J6, and plug it into J5.

2. If you are using a stereo headset, set W3 and/or W4 to ON to route the program audio to the left headphone, right headphone or both headphones. If you are using a mono headset, set both W3 and W4 to ON.

3. Connect the program source to the LINE LOOP connector using an XLR-3-32 female receptacle wired as follows

Pin 1 - Common

Pin 2 - Program input high

Pin 3 - Program input low

4. Adjust program input volume using the PGM VOL control on the back panel.

c. W5 applies to a stereo dynamic-mic headset connected to the STEREO HEADSET jack. With W5 set in the stereo position, intercom channel 1 will be heard in the left headphone only, and channel 2 will be heard only in the right. In the mono position, both intercom channels (and program audio if connected) will be heard in both headphones. If you are using monaural headphones connected to the MONO HEADSET jack, W5 may be left in the stereo position.

d. The CARB-MIC connector may be used to connect either a headset or an external mic ON/OFF switch. (If you are using a carbon-mic headset, but still wish to use an external mic switch, the LINE LOOP connector may alternatively be used for the mic switch. See note X, below.) To use the CARB-MIC connector for an external mic ON/OFF switch:

1. Place jumper W7 in the “EXT MIC SW” position.

2. Use a stereo phone plug to connect the external switch to the CARB-MIC HEADSET jack:

Tip: Remote Mic Switch Normal-open Contact

Ring: No connection

Sleeve: Remote Mic Switch Common

3. To use the external mic switch, first set one or both TALK buttons to the latched-on position. Then, press the external mic switched turn the TALK button(s) ON. Release the mic switch to turn the TALK button(s) OFF. Note, the TALK buttons may still be turned ON or OFF from the BP-325; however, the external mic switch will not work unless the TALK buttons are first turned ON at the BP-325

e. As supplied, the TALK buttons feature a dual-action momentary/latching operation: press and hold for momentary talk, then release when finished; or tap to latch ON for hands-free talk, and tap again to turn OFF when finished talking. If desired, the latching operation may be defeated, and the TALK buttons may be operated in momentary mode only.

f. Setting DIP switch 3 to the ON position will disable the channel 2 TALK button. Setting DIP switch 4 to the ON position will disable the channel 1 TALK button.

g. As supplied, the BP-325 can generate an inaudible talk-off signal which can be used to deactivate the talk buttons on other intercom stations connected to an intercom channel. To turn this feature OFF, set DIP switch 6 to the OFF position.

h. As supplied, other intercom stations can deactivate the TALK buttons on the BP-325 using the Talk-Off feature from their intercom stations. To disable this feature, set DIP switch 8 in the OFF position.

i. Using the LINE LOOP connector for an external mic ON/OFF switch:

1. Unplug the LINE LOOP connector from J6 on the circuit board, and plug it into J4.

2. Connect the external mic switch to the LINE LOOP connector using an SLR-3-32 female receptacle wired as follows:

Pin 1: Remote Mic Switch Common

Pin 2: No Connection

Pin 3: Remote Mic Switch Normal-open Contact

3. To use the external mic switch, first set one or both TALK buttons to the latched-ON position. Then, press the external mic switch to turn ON the TALK button(s). Release the mic switch to turn off the TALK button(s). Note, the TALK buttons may still be turned ON or OFF from the BP-325; however, the external mic switch will not work unless the TALK buttons are first turned on at the BP-325.

SIDETONE ADJUSTMENT

You can change the level of your own voice heard in your headphones while talking on an intercom channel. Adjust R39 to change your voice level when talking on channel 1. Adjust R52 to change your voice level when talking on channel 2.

ALTERNATE POWERING METHODS

GENERAL

When using an RTS power supply to power the intercom system, power is carried to the BP325 on pin 2 of the LINE INPUT connector along with the channel 1 audio. Pin 1 is the DC return. The unique design of RTS power supplies permits power to be carried on an audio channel. RTS power supplies also provide the proper terminating impedance for each intercom channel. If a non-RTS power supply is used, there are two alternatives for connecting power and intercom audio.

The first method uses channel 1 only to connect the non-RTS power supply. Audio on channel 1 will be unusable as the power supply will look like a short circuit at audio frequencies. Channel 2, however, will still be operational. Also, channel 2 will require a terminating impedance, since this is not supplied by the non-RTS power supply.

The second method allows the use of a non-RTS power supply while still maintaining two audio channels. This method requires an additional wire to the belt pack, and the LINE LOOP connector will not be usable for connecting another intercom station. Also, each intercom channel must be properly terminated. The two methods are discussed below.

METHOD ONE: ONE CHANNEL OPERATION WITH A NON-RTS POWER SUPPLY

Using an XLR-3-32 female connector, connect the external power source and the channel terminating components to the LINE INPUT connector as shown in Figure 2.

If desired, the LINE LOOP connector may be used to connect power and audio to an additional intercom station.

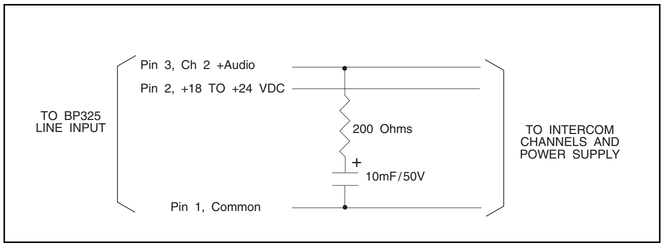


FIGURE 1. LINE INPUT Connector Wiring for 1-Channel Operation with Non-RTS Power Supply

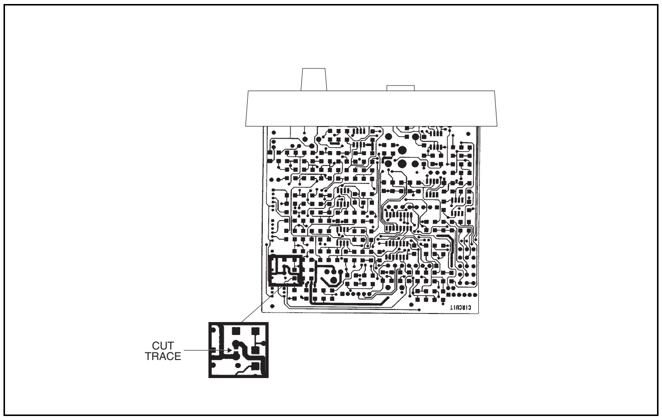


FIGURE 2. Bottom View of the Main Circuit Board

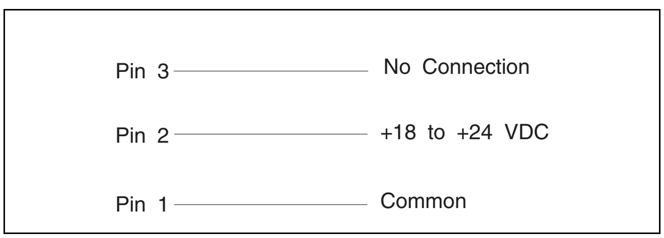


FIGURE 3. LINE LOOP Connector Wiring for 2-Channel Operation with Non-RTS Power Supply.

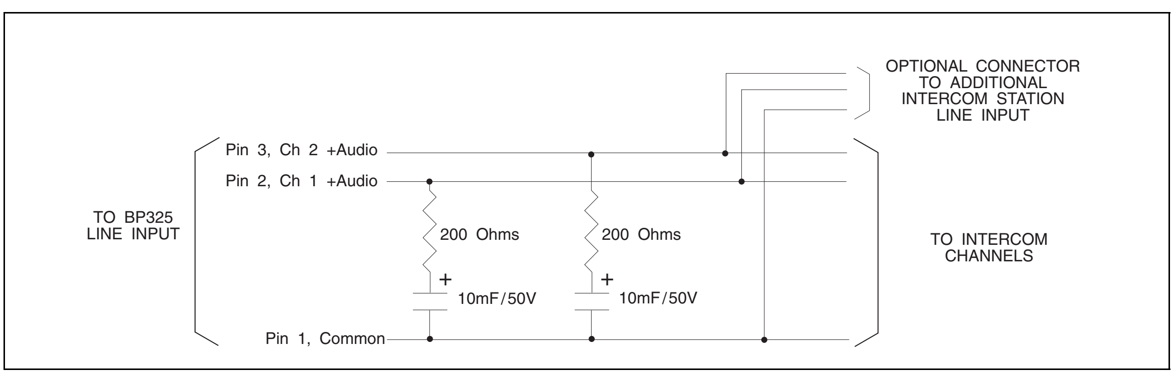


FIGURE 4. LINE INPUT Connector Wiring for 2-Channel Operation with Non-RTS Power Supply

METHOD TWO: TWO CHANNEL OPERATION WITH A NON-RTS POWER SUPPLY

1. Referring to Figure 1, remove all three screws (10a and 10b) on the back connector panel of the BP325. Remove the rear cover/belt clip assembly.
2. There are two connectors that connect the main circuit board to the front panel circuit board. Pry the tabs on these two connectors to disconnect them. Remove the back connector panel and main circuit board from the belt pack.
3. On the bottom side of the main circuit board, cut the trace as shown in Figure 3.
4. Reassemble the main circuit board and rear connector panel to the belt pack.

Note: If the rear connector panel becomes separated from the main circuit board at any time, make sure that the shaft of the program volume control knob inserts into the program volume control potentiometer on the main circuit board during reassembly.

5. Referring to the label on the inside of the rear cover, unplug the LINE LOOP connector from J6 and plug it into J4.
6. Reassemble the rear cover.
7. Using an XLR-3-32 female receptacle, connect the external power source to the LINE LOOP connector as shown in Figure 4. Connect +DC to pin 2 and connect power supply common to pin 1.

Using an XLR-3-32 male plug, connect intercom channels and termination components as shown in Figure 5. Plug this connector into the LINE INPUT jack of the BP325.

CHAPTER 2

REPLACEMENT PARTS

WHERE TO OBTAIN PARTS

Parts may be obtained directly from RTS at:

TELEX/RTS SYSTEMS
Attn: Factory Service
8601 East Cornhusker Hwy.
Lincoln, NE 68507 U.S.A.

MECHANICAL PARTS

Final Assembly
(Refer to Figure 5, "Final Assembly, BP325," on page 21 drawing for Item No. locations)

Item No.	Qty	Description	RTS Part No.
1	1	Front/Top Panel Assy, BP325	9020673700
2	1	Front/Top Panel Assy, BP325	9020673720
3	1	Back Panel Assy., BP325	9020673600
4	1	Bottom Case w/ Belt Clip, BP325	9020563500
5	3	Screw, 4-40 X 3/4" LG	1008407600
6	1	Label, Serial, GM035260	3101001700
7	1	Front/Top Panel Assy., BP325, Black	9020673721
8	1	Back Panel Assy., BP325. Black	9020673621
9	1	Bottm Case w/ belt clip, BP325, Black	9020563521

Rear Panel Assy
(Refer to Figure 3, "Rear Panel Assembly, BP325," on page 19 drawing for Item No. locations)

Item No.	Qty	Description	RTS Part No.
1	1	Back Panel, Gray	9080563700
2	1	Back Panel, Black	9080563701
3	3	Release Lever, Blue	9160563701
4	3	Release Lever, Dark Gray	9160563711
5	1	Knob, Program Volume	9160677500
6	1	Connector Assy, Line Input	25026736000
7	1	Connector Assy, Line Loop Aux I/O	25026736001
8	1	Connector Assy, Mono Headset	25026736002
9	1	Connector Assy, Stereo Headset	25026736003
10	1	Screw, M2.5 X 0.45 X 8MM	FST000023000

Front/Top Panel Assy
(Refer to Figure 1, "Front Panel Board Assembly, BP325," on page 17 drawing for Item No. locations)

Item No.	Qty	Description	RTS Part No.
1	1	Front Case, Gray	9020563601
2	1	PCB Assembly, BP325	90306634000
3	1	PC Board Assembly, BP325 6*90406635000	90306635000
4	3	Screw, #3-24 x 3/8" Pan Head	51856-035
5	1	Button Talk CH1 (FAM)	9160563603
6	1	Button Talk CH2 (FAM)	9160563604
7	1	Lens Call	9150563606
8	1	Button Call (FAM)	9160563605
9	2	Knob Boot	9160563602
10	2	Knob Body Nylon	9160563601
11			
12	2	Pushnut Fastener	1005021100
13	1	PC Board Assy, BP325 Rev 2.0	90306635001
14	1	Front Case, Black	9020563602
15	1	Button, Talk, CH1, Dark Gray	9160563613
16	1	Button, Talk, CH2, Dark Gray	9160563614
17	1	Button, Call, Dark Gray	9160563615
18		Loctite	BE753

ELECTRICAL PARTS

ITEM	QTY	REF	PART NUMBER	VALUE
1	9	C12,C22,C23,C24,C26, C30,C31,C32,C46	1099R2263GT	22UF
2	1	C41	1502R2284E	2200UF
3	1	U11	53266124	
4	2	U13,U14	53281100	
5	1	U8	53290000	
6	4	J4,J5,J6,J7	59958103	
7	1	U10	59631000	
8	2	J2,J3	59958106	
9	4	Q2,Q3,Q11,Q15	102210000	
10	13	D1,D2,D3,D7,D8,D9,D10, D11,D12,D13,D101,D102,D103	102252000	
11	2	R4,R6	102404146	301
12	2	R62,R64	102404300	10K
13	4	R42,R43,R55,R56	102404329	20K
14	6	R40,R41,R53,R54,R61,R63	102404375	60.4K
15	3	R69,R128,R130	1025132R7	2.7
16	3	R27,R44,R57	102513101	100
17	6	R3,R8,R29,R31,R33,R49	102513102	1K
19	5	R25,R30,R66,R68,R70	102513103	10K
20	17	R11,R19,R21,R23,R28,R45, R58,R59,R60,R67,R78,R79, R85,R101,R102,R103,R104	102513104	100K
21	1	R71	102513112	1_1K
22	1	R24	102513153	15K
23	3	R18,R26,R77	102513201	200
24	9	R12,R13,R80,RR1,RR2, RR3,RR4,RR5,RR6	102513220	22
25	34	R1,R2,R14,R20,R22,R34, R36,R37,R38,R46,R48,R50, R51,R73,R74,R75,R76,R82, R83,R84,R106,R108,R109, R110,R111,R124,R126,R129, R131,R132,R133,R134,R135, R136	102513223	22K
27	1	R112	102513225	2.2M
28	6	R32,R105,R107,R113,R114,R115	102513274	270K
29	2	R72,R81	102513300	30
30	1	R122	102513302	3K
31	5	R119,R120,R121,R125,R127	102513473	47K
32	3	R116,R117,R118	102513474	470K
33	3	R15,R16,R17	102513515	5.1M
34	2	R9,R10	102513621	620
35	2	R35,R47	102513683	68K
36	1	R123	102513390	39
38	1	C10	102879212	470PF
39	7	C4,C5,C14,C36,C37,C107,C112	102879216	1000PF
40	10	C2,C18,C19,C20,C25, C27,C28,C33,C39,C104	102879204	100PF
41	6	C15,C21,C29,C102,C103,C105	102879271	10PF
42	25	C6,C7,C8,C11,C17,C44,C45, C106,C108,C109,C111,C113, C114,CC1,CC2,CC3,CC4, CC5,CC6,CC7,CC10,CC11, CC12,CC13,CC14	102880226	.1UF
43	1	C13	102881339	.01UF
45	8	C1,C3,C110,C9,C115,C40,C42,C43	102884215	47UF
46	8	C16,C34,C35,C38,C100,C101,C116,C117	102884606	1.0UF_35V
47	1	U12	90157491010	
48	1	U2	53266123	
49	1	R65	1412100601	50K
50	2	FB1,FB2	59180303	
51	2	R39,R52	14090065SMT	10K
53	1	D6	16010004SMT	
54	2	D4,D5	16016481SMT	
55	4	Q10,Q12,Q13,Q14	16025087SMT	
56	1	Q1	16025484SMT	
57	1	U15	16030008SMS	
58	4	U3,U4,U6,U7	16030131SMT	
59	1	U5	16030140SMS	
60	1	U1	16030833SMT	
61	1	SS1	19090002SMS	
62	6		2007009900	
63	2	J8,J9	20070143SM	
64	4	TP1,TP2,TP3,TP4	2017001400	
65	1	Y100	33010009SM	19.6608 MHZ
66	1		4502001600	
67	1		90406635000	
68	2	RP1,RP2	1411220200	22K
69	1	J1	2013004900	
70				
71	1	W8	102513000	
73	6	W1,W2,W3,W4,W5,W7	2515001500	
74	1		1006004100	
75	1		1007000700	
76	1		1008402300	
77	1		2703002900	
78	AR		51741000	
79	2	R5,R7	102404246	3.01K

CHAPTER 3

Specifications and Drawings

Specifications

Dimensions

5.00” High x 3.75” Wide x 2.05” Deep
(127mm x 96.3mm x 52.1mm)

Weight

0.5 pounds (225 grams)

Exterior

Polystyrene and polycarbonate mix; gray textured main body

Power Requirements

Input DC Voltage

=18 to +35 volts DC, operating; -200 to +36 volts DC without damage

DC Current

mA
Average talk + call light: 6 No Signal: 27 milliamperes.
Average talk (25 ohm headphones, 10dB below clipping): 43 0mA

Impedance Across Intercom Line

10,000 ohms typical

Ambient Temperature Range

Operating: 0°C to 50°C (32°F - 122°F)

Storage: -40°C to 125°C (-40°F to 257°F)

Noise Contribution to 200-Ohm Intercom Line

-75 dBu

Headphone Amplifier

Maximum Voltage Gain: 30dB

Frequency Response: 100 Hz to 8 kHz, +/-3 dB

Headphone Impedance: 50 to 600 ohms

Output Power: 150 mW/50 ohms

Output Voltage Level: 8 volt peak-to-peak

Microphone Preamplifier

Maximum Voltage Gain: 54 dB

Frequency Response: 100 Hz to 8 kHz, +/-3 dB

Input Impedance: 1,000 ohms, balanced

Limiter Range: 30 dB

Program Input

Maximum Input Level: +20 dBu

Nominal Input Level: -10 to +8 dBu

Frequency Response: 100 Hz to 12 kHz, +/-3 dB

Monaural Dynamic-mic Headset Connector

XLR-4-31 receptacle (J13)

Pin 1 - Microphone low

Pin 2 - Microphone high

Pin 3 - Common

Pin 4 - Headphone high

Stereo Dynamic-mic Headset Connector

XLR-5-31 receptacle (J14)

Pin 1 - Microphone low

Pin 2 - Microphone high

Pin 3 - Common

Pin 4 - Headphone left high

Pin 5 - Headphone right high

Carbon-mic Headset Connector (J1) - 1/4 inch, 3-conductor Phone Jack

Used for Headset

Tip - Carbon microphone

Ring - Headphone

Drawings

Drawing Number	**Title**
9030-6634-000	Front Panel Circuit Board Assemblyt
9030-6635-000	Main Board Layout
9020-6736-000	Rear Panel Assembly
9020-6737-000	Front/Top Panel Assembly
9010-6738-000	Final Assembly
9027-6635-000	Schematic Diagram, Main Circuit Board (pages 1 & 2)
2502-6736-000	Cable Assemblies

Figure 1: Front Panel Board Assembly, BP325

CAM350 V 9.1.1 : Wed Dec 13 08:48:28 2006 - 6634-000_e1.cam

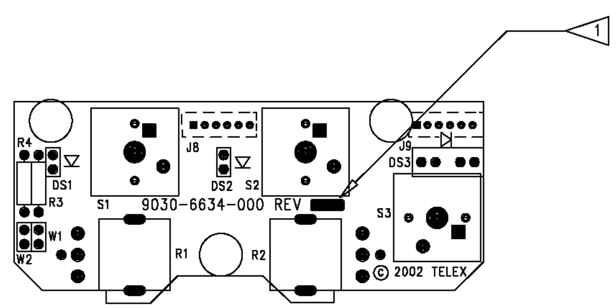
				SHEET	SHEET REVISION STATUS
				REV.	

NOTES:

1. MANUFACTURING TO MARK REV ON BOARD THAT APPEARS ON DRAWING
2. REFERANCE SCHEMATIC DRAWING 9027-6634-000 REV A
5. THIS ASSEMBLY IS TO BE CONSTRUCTED USING ROHS COMPLIANT COMPONENTS, SOLDERS AND PROCESSES PER TELEX SPC000017002.

REVISIONS

LOC.	REV.	DESCRIPTION	ECO. NO.	DRFT	CHKR	APP	DATE
	C	REVISED AND REDRAWN IN POWER PCB	73821	SX	CBH		6-17-02
	D	ADD: ITEM #8; SWITCH EXTENDER	73963	SX			10-10-02
	E	MODIFY BOM AND ASY PRINT FOR ROHS COMPLIANCE	46-000663	SX	SX		12-13-06



-004 QTY.	-003 QTY.	-002 QTY.	-001 QTY.	-000 QTY.	ITEM NO.	REF DESIG.	PART NUMBER	DESCRIPTION
				3	8	XS1, XS2, XS3	701635-000	SWITCH EXTENDER
				.001	7	AR	SS360	CAIG DEOXIT SPRAY 3DS5-6
				2	6	DS1, DS2	1801575100	LED, PY5351K
				1	5	DS3	1801002000	LED, MU16-2105 STANLEY
				3	4	S1, S2, S3	545094-001	KEYSWITCH WITH FIXATION PINS, MX SERIES, MX1A-11NW
				2	3	J8, J9	2007014400	CONNECTOR, JST#06R-F-J
				2	2	R1, R2	1406003901	POT, 10K OHM AUDIO, NOBLES #V012LPV-20F-15A10K
				1	1		9040-6634-000	BP325 FRONT PANEL PCB
					REV	LIST OF MATERIALS		

CAD GENERATED DRAWING

FILE NAME: IC_GROUP/ECAD/BOARDS/6634/REVE/6634E1.PCB

MODEL | NEXT ASS'Y

UNSPECIFIED LIMITS OF TOLERANCE
STRAIGHTNESS AND/OR FLATNESS .005 IN./1 IN.
CONCENTRICITY .010 TIR
ANGLES P1/2D BENDS P2D
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90D
THREADS- EXT. CLASS 2A
INT. CLASS 2B
MOLD FINISH: SPI-SPE NO. 3
DRAFT 2D

DECIMAL
.X P.050 IN.
.XX P.030 IN
.XXX P.010 IN.

MACHINED FINISH: 64 ✓

DR SX | CK CBH | APP
DATE 6-04-02 | SCALE NONE
DO NOT SCALE DRAWING

TELEX®
MINNEAPOLIS, MINNESOTA

TITLE BP325 FRONT PANEL BOARD ASSEMBLY DRAWING
P/N
SIZE B | DWG. NO. 9030-6634-000
SHEET 1 OF 1
PLANT DIST. BE , LNC

Figure 2: Main Board, BP325

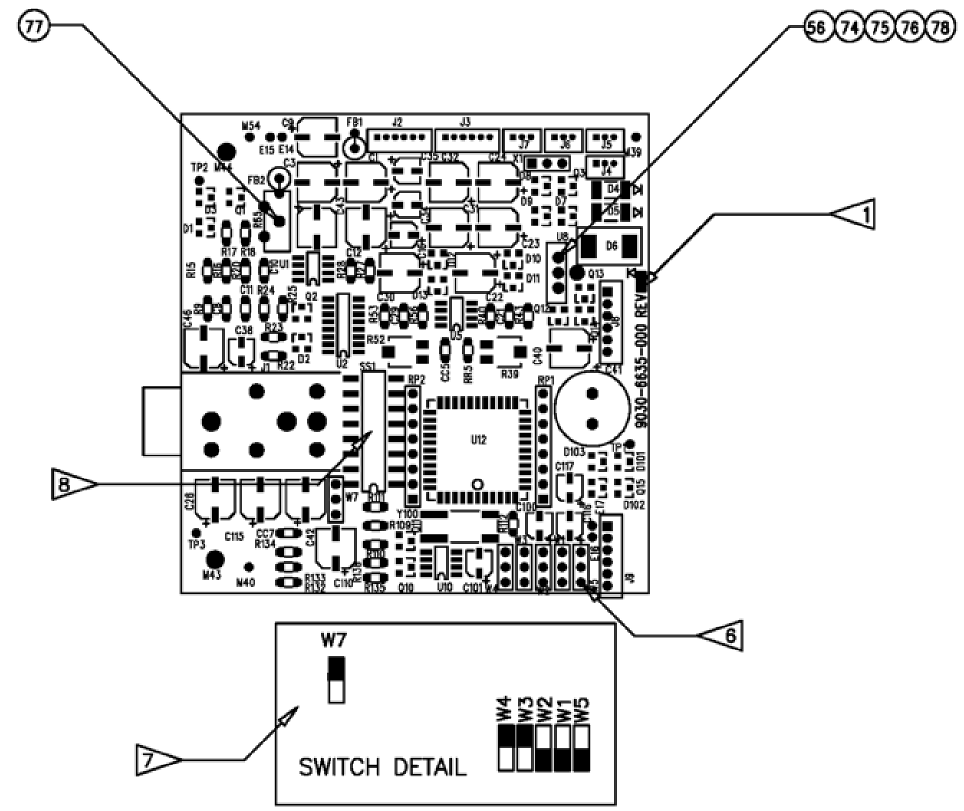
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				REV.	

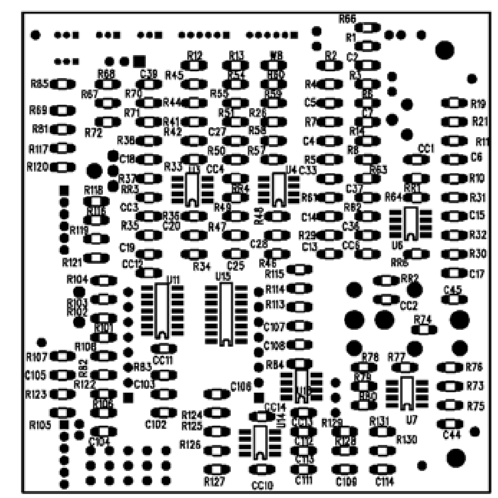
NOTES:

1. MANUFACTURING TO STAMP REV ON BOARD THAT APPEARS ON DRAWING
2. REFERANCE SCHEMATIC DRAWING 90276635-000 REV H
3. PARTS LIST FILED SEPARATELY 90306635-000 REV L
4. PARTS LIST FILED SEPARATELY 90306635-001 REV L
5. THIS ASSEMBLY IS TO BE CONSTRUCTED USING ROHS COMPLIANT COMPONENTS, SOLDERS AND PROCESSES PER TELEX SPC000017002.
6. U12 IS 9015749010 FOR 90306635000
   U12 IS 9015749020 FOR 90306635001
7. W4 AND W5 ARE ON FOR THE "ABC" VERSION.
8. DEFAULT POSITIONS FOR SWITCH SS1 ARE 6,8 – ON & 1-5, 7 OFF

REVISIONS

LOC.	REV.	DESCRIPTION	ECO. NO.	DATE	DRFT	CHKR	APP
	D	REVISED & REDRAWN	62113	CBH			11/25/97
	E	CHANGED NOTES 2 & 3	63577	CBH			11/9/98
	F	ADD BALLOON 78	63920	JV			1/12/00
	G	CHANGED NOTE 3; ADDED NOTE 4	73472	SX	CBH		6/19/01
	H	CHANGED NOTES 3 & 4	73673	SX			1/7/02
	J	CHANGED NOTES 3 & 4	44-000182	MMB			1/27/06
	K	CHANGED NOTES 3 & 4	44-000204	MMB			09/15/06
	L	MODIFY BOM AND ASY PRINT FOR ROHS COMPLIANCE	46-000663	SX	SX		12/13/06
	M	ADD NOTES 6, 7 ,8.	44-000600	SMc	SMc		08/08/07





CAD GENERATED DRAWING

FILE NAME: IC_GROUP/ECAD/BOARDS/6635/REVE/6635E15.PCB

DR CBH	CK	APP
DATE 1-25-97	SCALE 1:1	
DO NOT SCALE DRAWING		

TELEX®

MINNEAPOLIS, MINNESOTA

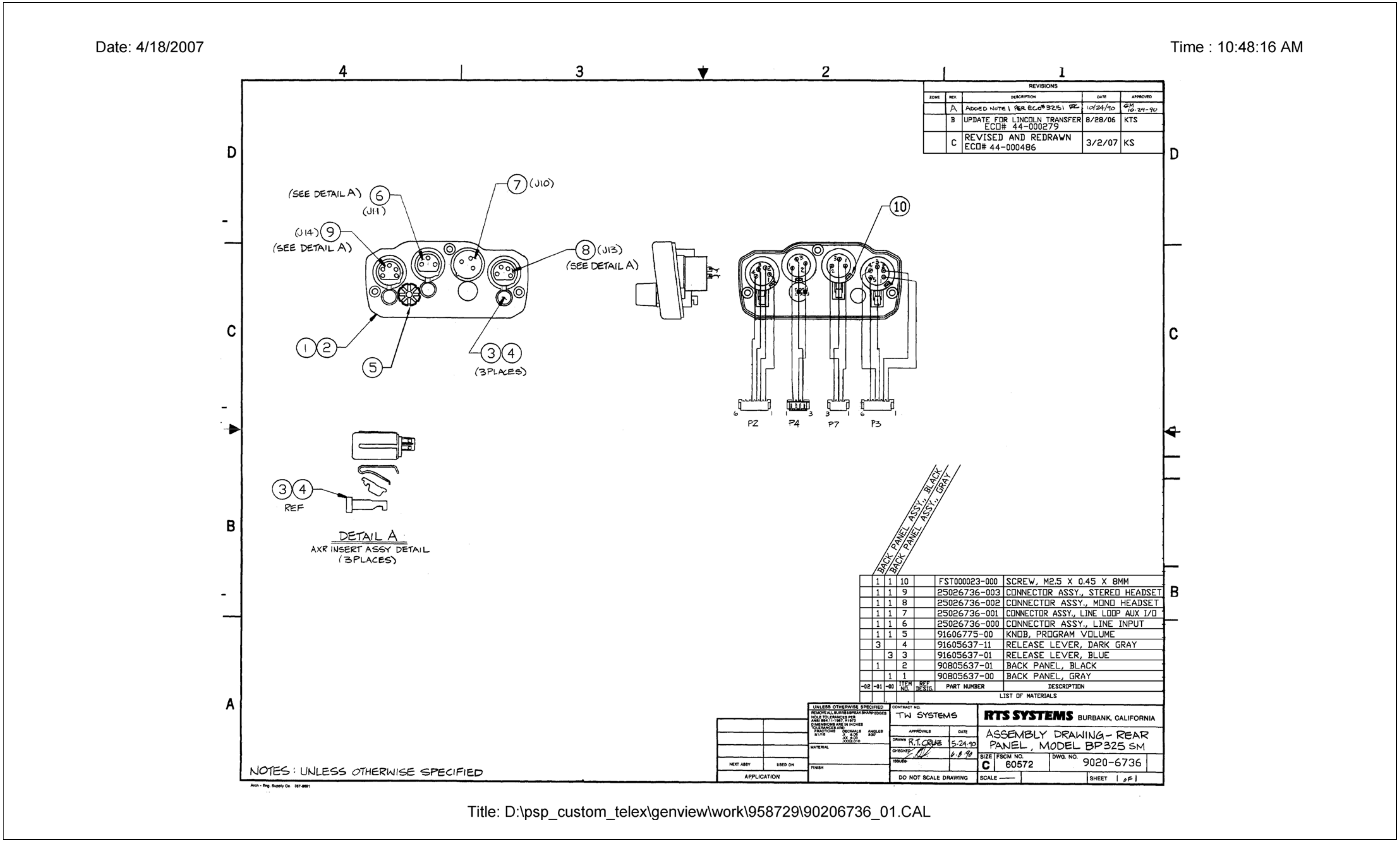
TITLE MODEL BP 325 MAIN BOARD

P/N

SIZE B | DWG. NO. 90306635 | SHT. 1 OF 1

PLANT DIST. LNC, CTI

Figure 3: Rear Panel Assembly, BP325



REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ADDED NOTE 1 PER ECO# 3251	10/24/90	GM 10-29-90
	B	UPDATE FOR LINCOLN TRANSFER ECO# 44-000279	8/28/06	KTS
	C	REVISED AND REDRAWN ECO# 44-000486	3/2/07	KS

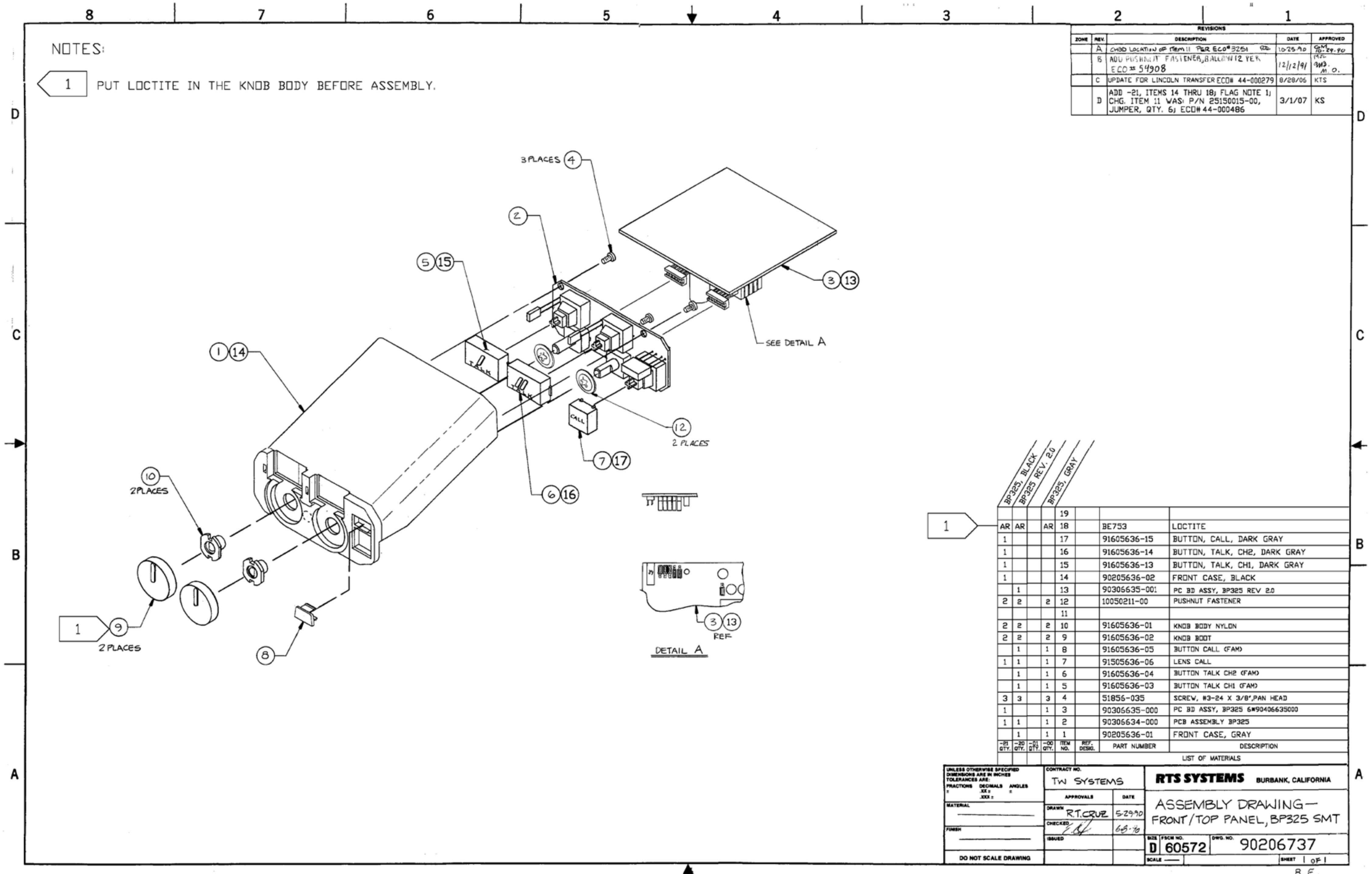
LIST OF MATERIALS

-02	-01 BACK PANEL ASSY., BLACK	-00 BACK PANEL ASSY., GRAY	ITEM NO.	REF DESIG.	PART NUMBER	DESCRIPTION
	1	1	10		FST000023-000	SCREW, M2.5 X 0.45 X 8MM
	1	1	9		25026736-003	CONNECTOR ASSY., STEREO HEADSET
	1	1	8		25026736-002	CONNECTOR ASSY., MONO HEADSET
	1	1	7		25026736-001	CONNECTOR ASSY., LINE LOOP AUX I/O
	1	1	6		25026736-000	CONNECTOR ASSY., LINE INPUT
	1	1	5		91606775-00	KNOB, PROGRAM VOLUME
	3		4		91605637-11	RELEASE LEVER, DARK GRAY
		3	3		91605637-01	RELEASE LEVER, BLUE
	1		2		90805637-01	BACK PANEL, BLACK
		1	1		90805637-00	BACK PANEL, GRAY

Figure 4: Front/Top Panel Assembly, BP325

Date: 4/18/2007

Time : 10:47:53 AM



REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	CHGD LOCATION OF ITEM 11 PER ECO# 3251	10-25-90	10-29-90
	B	ADD PUSHNUT FASTENER, BALLOON 12 PER ECO # 54908	12/12/91	M.O.
	C	UPDATE FOR LINCOLN TRANSFER ECO# 44-000279	8/28/06	KTS
	D	ADD -21, ITEMS 14 THRU 18; FLAG NOTE 1; CHG. ITEM 11 WAS: P/N 25150015-00, JUMPER, QTY. 6; ECO# 44-000486	3/1/07	KS

LIST OF MATERIALS (BP325, BLACK; BP325 REV. 2.0; BP325, GRAY)

-21 QTY.	-20 QTY.	-01 QTY.	-00 QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
				19			
AR	AR		AR	18		BE753	LOCTITE
1				17		91605636-15	BUTTON, CALL, DARK GRAY
1				16		91605636-14	BUTTON, TALK, CH2, DARK GRAY
1				15		91605636-13	BUTTON, TALK, CH1, DARK GRAY
1				14		90205636-02	FRONT CASE, BLACK
	1			13		90306635-001	PC BD ASSY, BP325 REV 2.0
2	2		2	12		10050211-00	PUSHNUT FASTENER
				11			
2	2		2	10		91605636-01	KNOB BODY NYLON
2	2		2	9		91605636-02	KNOB BOOT
	1		1	8		91605636-05	BUTTON CALL (FAM)
1	1		1	7		91505636-06	LENS CALL
	1		1	6		91605636-04	BUTTON TALK CH2 (FAM)
	1		1	5		91605636-03	BUTTON TALK CH1 (FAM)
3	3		3	4		51856-035	SCREW, #3-24 X 3/8",PAN HEAD
1			1	3		90306635-000	PC BD ASSY, BP325 6#90406635000
1	1		1	2		90306634-000	PCB ASSEMBLY BP325
	1		1	1		90205636-01	FRONT CASE, GRAY

Title: D:\psp_custom_telex\genview\work\958728\90206737_01.CAL

Figure 5: Final Assembly, BP325

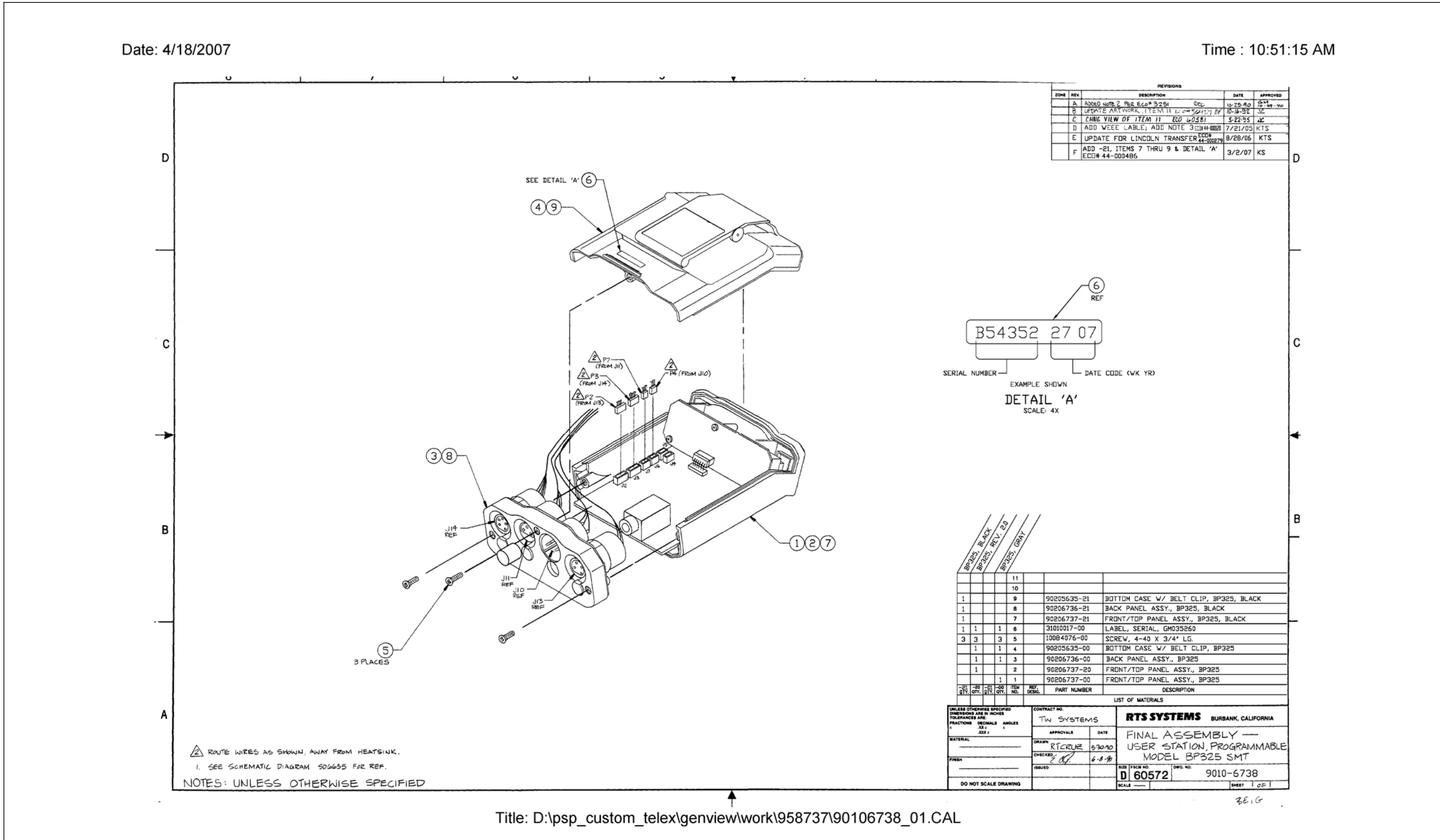


Figure 6: Schematic, Main Board page 1

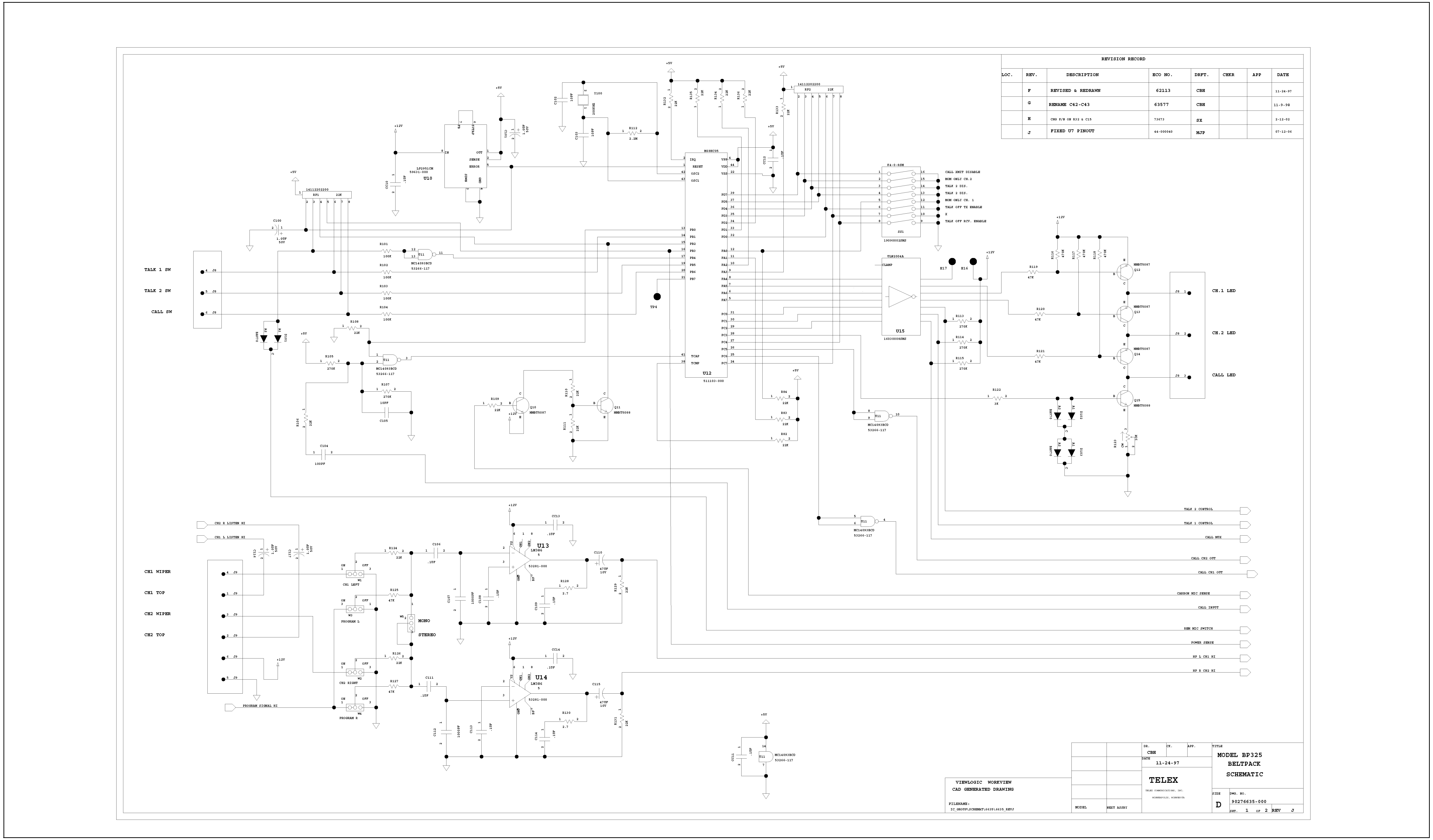


Figure 7: Schematic, Main Circuit Board page 2

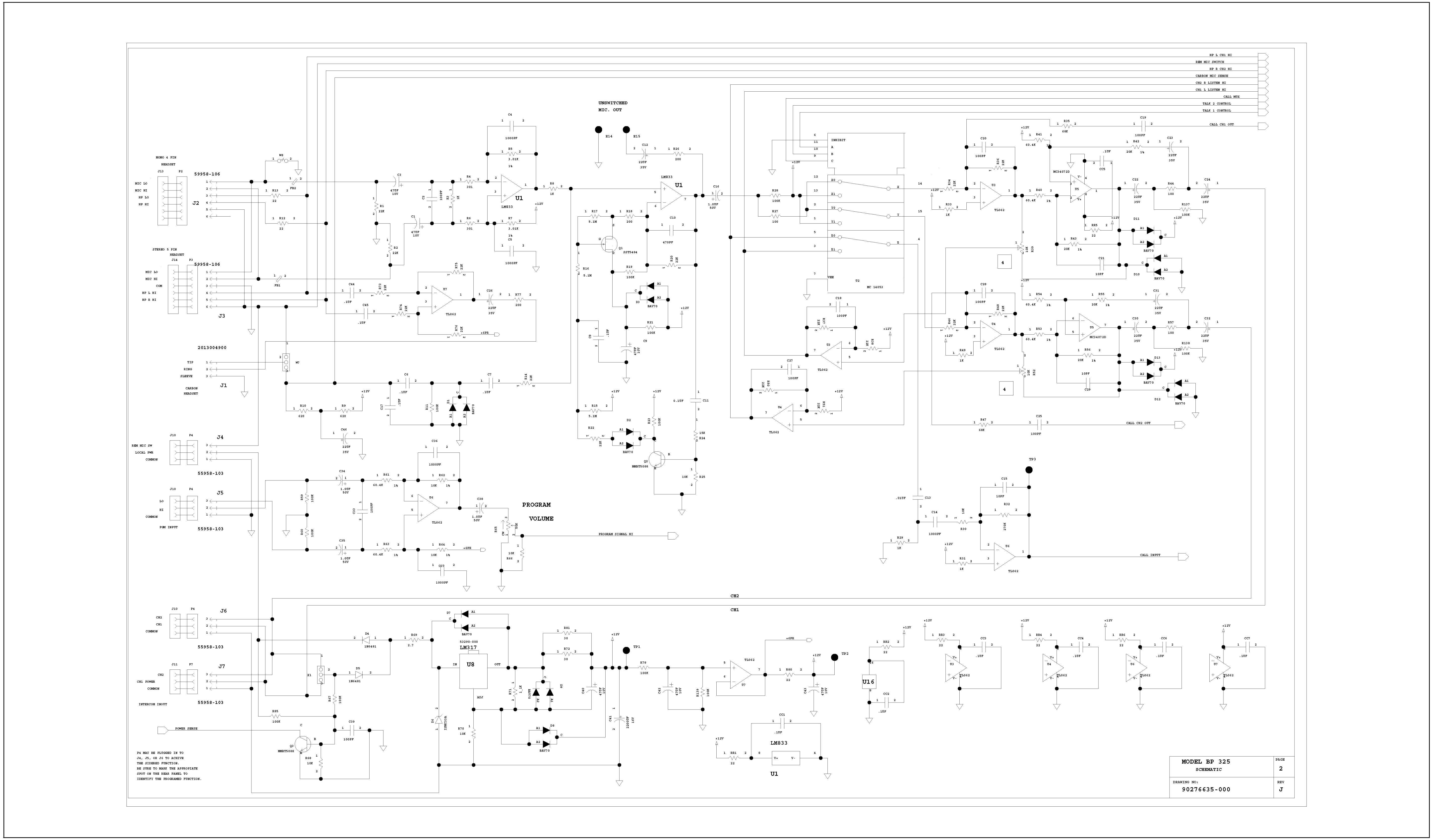


Figure 8: BP-325 Cable Assemblies

